

Title (en)
SELECTIVE REFLECTIVE AND ABSORPTIVE SURFACES AND METHOD FOR RESONANTLY COUPLING INCIDENT RADIATION

Title (de)
SELEKTIVE, REFLEKTIVE UND ABSORPTIVE OBERFLÄCHEN SOWIE VERFAHREN ZUR RESONANTEN KOPPLUNG ZUFÄLLIGER STRAHLUNGEN

Title (fr)
SURFACES SÉLECTIVES RÉFLECTRICES ET ABSORBANTES ET PROCÉDÉ DE COUPLAGE RÉSONNANT DE RAYONNEMENTS INCIDENTS

Publication
EP 1961077 A4 20090107 (EN)

Application
EP 06851527 A 20061212

Priority
• US 2006047449 W 20061212
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Abstract (en)
[origin: US2007222658A1] Methods and apparatus for providing a tunable absorption band in a wavelength selective surface are disclosed. A device for selectively absorbing incident electromagnetic radiation includes an electrically conductive surface layer including an arrangement of multiple surface elements. The surface layer is disposed at a nonzero height above a continuous electrically conductive layer. An electrically isolating intermediate layer defines a first surface that is in communication with the electrically conductive surface layer. The continuous electrically conductive backing layer is provided in communication with a second surface of the electrically isolating intermediate layer. The arrangement of surface elements couples at least a portion of the incident electromagnetic radiation between itself and the continuous electrically conductive backing layer, such that the resonant device selectively absorbs incident radiation, and reflects a portion of the incident radiation that is not absorbed.

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CPC (source: EP US)
H01Q 15/0013 (2013.01 - EP US); **H01Q 17/00** (2013.01 - EP US)

Citation (search report)
• [PX] EP 1720396 A1 20061108 - MITSUBISHI GAS CHEMICAL CO [JP]
• [X] US 5627541 A 19970506 - HALEY DONALD D [US], et al
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• [X] GB 814310 A 19590603 - WERNER GENEST GES FUR ISOLIERU
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• [A] PUSCASU I ET AL: "Near-infrared transmission and emission characteristics of frequency selective surfaces and its nano-fabrication issues", CONFERENCE ON LASERS AND ELECTRO-OPTICS. (CLEO 2001). TECHNICAL DIGEST. POSTCONFERENCE EDITION. BALTIMORE, MD, MAY 6-11, 2001; [TRENDS IN OPTICS AND PHOTONICS. (TOPS)], US, WASHINGTON, WA : OSA, US, vol. VOL. 56, 6 May 2001 (2001-05-06), pages 212 - 212, XP010559748, ISBN: 978-1-55752-662-5 & WO 2005084097 A1 20050909 - MITSUBISHI GAS CHEMICAL CO [JP], et al
• See references of WO 2007149121A2

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